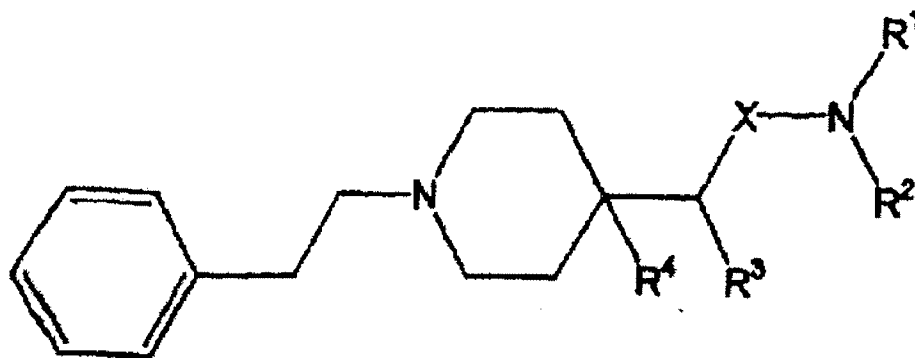


## II. CLAIM AMENDMENTS

1. (Currently Amended) Substituted 1-phenethylpiperidine compounds of the general formula I



1,

in which

X denotes a methylene (CH<sub>2</sub>) group,

R<sup>1</sup>- denotes an optionally at least mono-substituted aryl or heteroaryl residue group,

R<sup>2</sup> denotes H, COR<sup>5</sup>, SO<sub>2</sub>R<sup>5</sup>, an optionally at least mono-substituted, saturated, branched or unbranched aliphatic C<sub>1-10</sub> residue group, an optionally at least mono-substituted, at least mono-unsaturated, branched or unbranched aliphatic C<sub>2-10</sub> residue group, an optionally at least mono-substituted, saturated or at least mono-unsaturated cycloaliphatic C<sub>3-8</sub> residue group, an optionally at least mono-substituted aryl or heteroaryl residue group or an optionally at least mono-substituted aryl or heteroaryl residue group attached via a C<sub>1-3</sub> alkylene group, R<sup>3</sup> and R<sup>4</sup> each separately denote H or together denote a bond,

$R^5$  denotes an optionally at least mono-substituted, saturated, branched or unbranched aliphatic  $C_{1-10}$  ~~residue~~ group, an optionally at least mono-substituted, at least monounsaturated, branched or unbranched aliphatic  $C_{2-10}$  ~~residue~~ group, an optionally at least mono-substituted, saturated or at least mono-unsaturated cycloaliphatic  $C_{3-8}$  ~~residue~~ group, an optionally at least mono-substituted aryl or heteroaryl ~~residue~~ group or an optionally at least mono—substituted aryl or heteroaryl ~~residue~~ group attached via a  $C_{1-3}$  alkylene group,

as a free base or a corresponding physiologically acceptable salt and corresponding racemates, enantiomers and diastereomers.

2. Cancelled

3. (Currently Amended) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that  $R^1$  denotes an optionally at least mono-substituted aryl ~~residue~~ group.

4. (Currently Amended) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that  $R^2$  denotes H,  $COR^5$ ,  $SO_2R^5$  or denotes a  $C_{1-6}$  alkyl group.

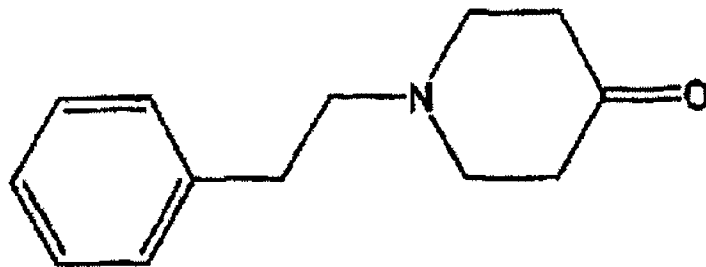
5. (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that  $R^3$  and  $R^4$  each denote H.

6. (Currently Amended) Substituted 1-phenethylpiperidine compounds according to claim 1, characterised in that the group  $R^5$  denotes a  $C_{1-6}$  alkyl group or denotes an unsubstituted or at least mono-substituted aryl group.

7. (Previously Presented) Substituted 1-phenethylpiperidine compounds according to claim 8, where the  $R^5$  denotes a  $C_{1-6}$  alkyl.

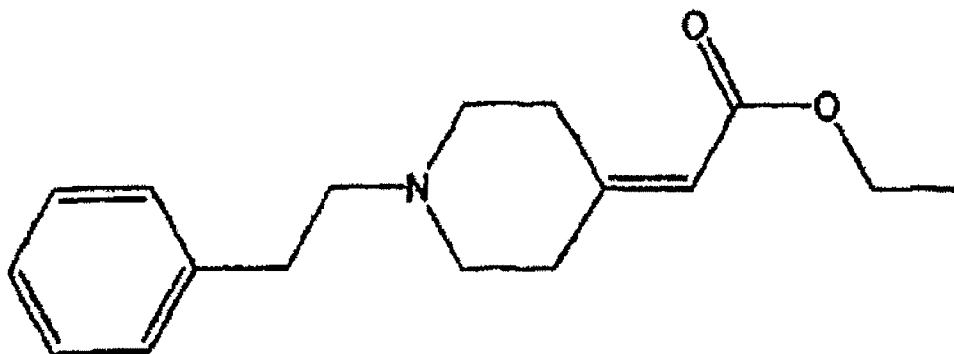
8. (Currently Amended) A process for the production of substituted 1-phenethylpiperidine compounds of the formula I according to claim 1, characterised in that

(a) 1-phenethylpiperidin-4-one of the formula II



II

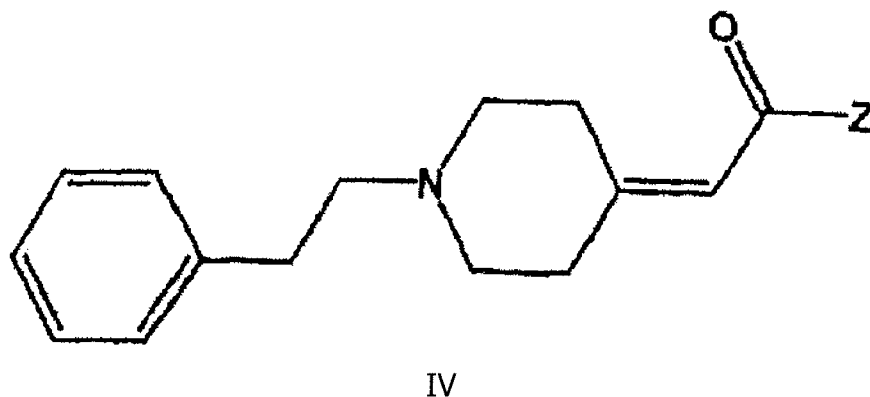
is reacted with triethyl phosphonoacetate in solution to yield (1-phenethylpiperidin-4-ylidene)-ethyl acetate of the formula III



III

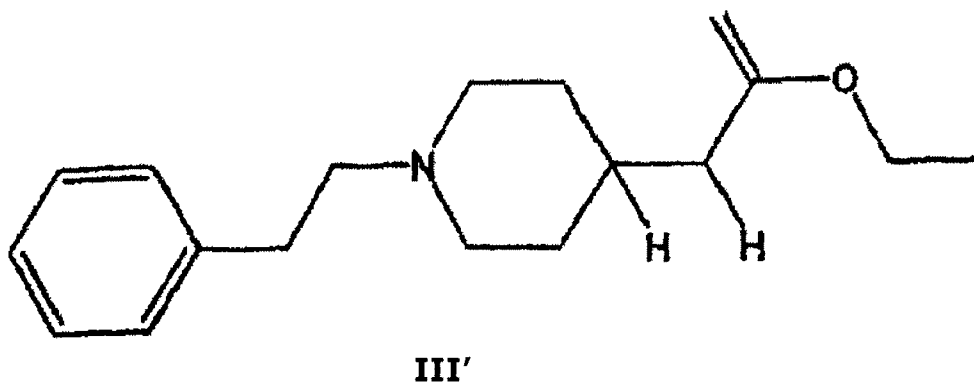
and this is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods,

(b) optionally the (1-phenethylpiperidin-4-ylidene)-ethyl acetate of the formula III is converted in accordance with conventional methods into a compound of the general formula IV,

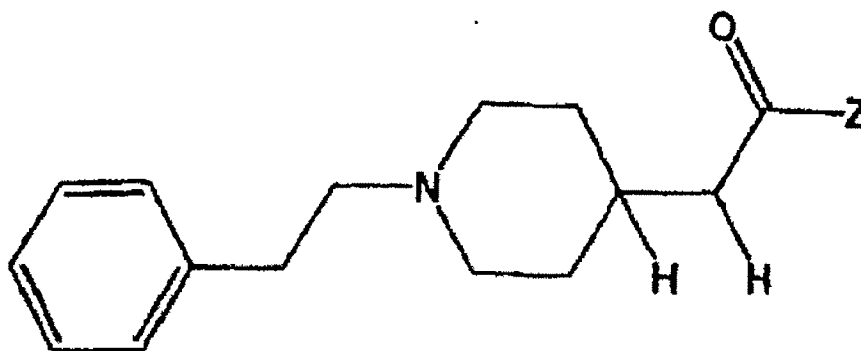


in which Z denotes a group which activates the carbonyl carbon atom for reaction with an amine, the compound of the general formula IV thus obtained is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods,

(c) optionally at least one of the compounds of the formula III or IV in solution is reduced to yield a corresponding compound of the general formula III'



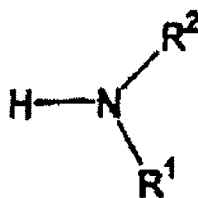
or to yield a corresponding compound of the general formula IV'



IV'

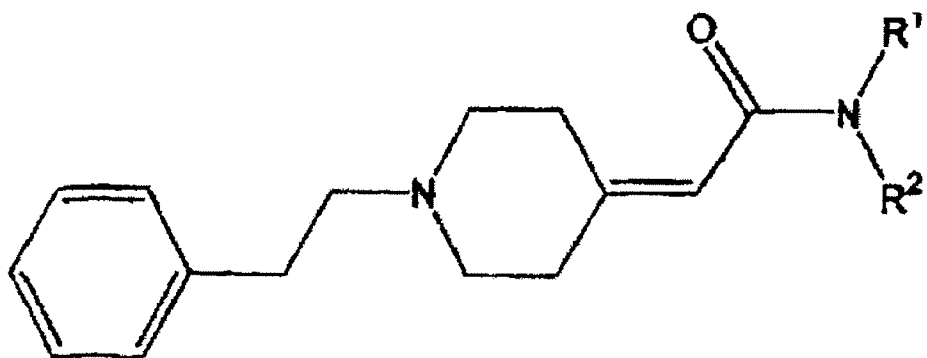
and the corresponding compound is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(d) at least one compound of the formula III, III', IV and IV' in solution is reacted with a primary or secondary amine of the general formula V,



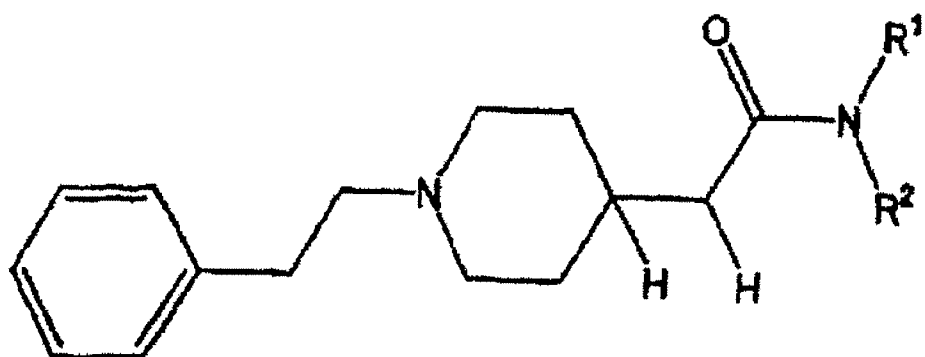
V

in which R<sup>1</sup> and R<sup>2</sup> have the meaning according to the above-stated general formula I, to yield at least one compound of the general formula Id



**Id**

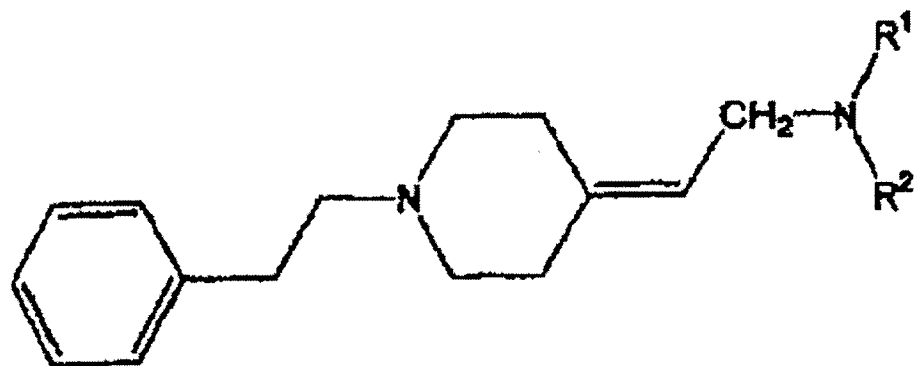
and/or at least one compound of the general formula Id'



**Id'**

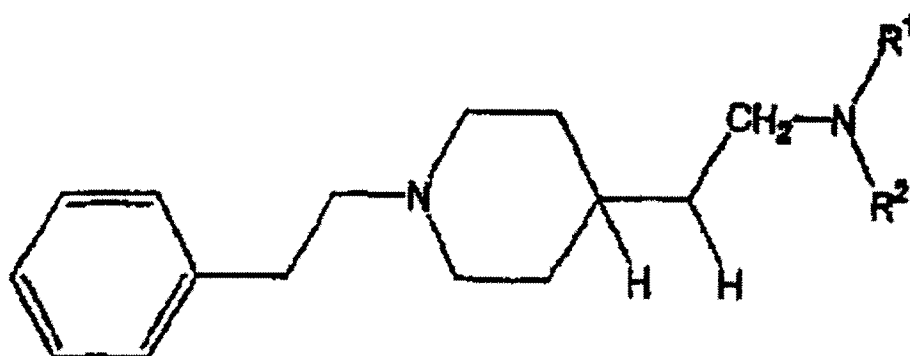
and this is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(e) optionally at least one of the compounds of the general formula Id and/or Id' is converted by reduction in solution into at least one compound of the general formula Ie



1e

and/or at least one compound of the general formula 1e'



1e'

in which R<sup>1</sup> and R<sup>2</sup> each have the meaning according to claim 1, and this is optionally purified in each case in accordance with conventional methods and/or optionally isolated in each case in accordance with conventional methods,

(f) optionally at least one compound of the ~~general~~ formula Ie and/or Ie', in which the ~~residue group~~  $R^2$  denotes H, is converted in accordance with conventional methods known to the person skilled in the art into at least one compound of the ~~general~~ formula Ie and/or Ie', in which the residue  $R^2$  denotes  $COR^5$ ,  $SO_2R^5$ , an optionally at least mono-substituted, saturated, branched or unbranched aliphatic  $C_{1-10}$  ~~residue group~~, an optionally at least mono-substituted, at least mono-unsaturated, branched or unbranched aliphatic  $C_{2-10}$  ~~residue group~~, an optionally at least mono-substituted, saturated or at least monounsaturated cycloaliphatic  $C_{3-8}$  ~~residue group~~, an optionally at least mono-substituted aryl or heteroaryl ~~residue group~~ or denotes an optionally at least mono-substituted aryl or heteroaryl ~~residue group~~ attached via a C1-3 alkylene group, wherein the ~~residue group~~  $R^5$  has the above-stated meaning and this is optionally purified in accordance with conventional methods and/or optionally isolated in accordance with conventional methods.

9. (Currently Amended) A process according to claim 8, characterised in that Z denotes OH, CI or a succinimide ~~residue group~~.

10. (Previously Presented) A process according to claim 8, characterised in that the reduction to yield the compounds of formula III' or IV' is performed with hydrogen in the presence of a transition metal catalyst.

11. (Previously Presented) A process according to claim 8, characterised in that the reaction with a primary or secondary amine of the formula V is performed in the presence of n-butyllithium.

12. (Previously Presented) A process according to claim 8, characterised in that reduction to yield a compound of the formula Ie or Ie' proceeds with aluminium hydride (alane) produced in situ from lithium aluminium hydride and aluminium



trichloride in an organic solvent.

13. (Previously Presented) A pharmaceutical preparation containing at least one substituted 1-phenethylpiperidine compound according to claim 1 and optionally physiologically acceptable auxiliary substances.

14-23. Cancelled

24. (Withdrawn) A method of combatting of pain, or migraine, diarrhoea, urinary incontinence, pruritus, inflammatory reactions, allergic reactions, dependency on alcohol and/or drugs and/or medicines, abuse of alcohol and/or drugs and/or medicines, inflammation or for local anesthesia comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

25. (Previously Presented) A compound of claim 1 selected from the group consisting of

[2-(1-Phenethylpiperidin-4-yl)ethyl]phenylamine,

(4-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

2-[2-(1-Phenethylpiperidin-4-yl)ethylamino]phenol,

[2-(1-Phenethylpiperidin-4-yl)ethyl]-[3-trifluoromethylphenyl]amine,

(3-Methoxyphenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

4-[2-(1-Phenethylpiperidin-4-yl)ethylamino]phenol,

(4-Chloro-2-fluorophenyl)-[2-(1-phenethylpiperidin-4-yl)ethyl]amine,

3-[2-(1-Phenethylpiperidin-4-yl)ethylamino]phenol,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]acetamide,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]propionamide,

N-(3-Chloro-4-methoxyphenyl)-N-[2-(1-phenethylpiperidin-4-yl)ethyl]benzamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-(3-trifluoromethylphenyl)acetamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-phenylacetamide,

N-[2-(1-Phenethylpiperidin-4-yl)ethyl]-N-phenylbenzamide,

(4-Methylpyridin-2-yl)-[2-(1-phenethyl-piperidin-4-yl)-ethyl]amine and

(4,6-Dimethyl-pyridin-2-yl)-[2-(1-phenethylpiperidin-4-ylidene)-ethyl] amine.

26.(Previously Presented) A method of combatting pain comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

27. (Previously Presented) A method of treating migraine comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

28. (Withdrawn) A method of treating □iarrhea comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim

1.

29. (Withdrawn) A method of treating urinary incontinence comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

30. (Withdrawn) A method of treating pruritus comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

31. (Withdrawn) A method of treating inflammatory reactions comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

32. (Withdrawn) A method of treating allergic reactions comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

33. (Withdrawn) A method of treating dependency on alcohol and/or drugs and/or medicines, or abuse of alcohol and/or drugs and/or medicines, comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

34. (Withdrawn) A method of treating inflammation comprising administering to a patient in need thereof of a therapeutically effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound

according to claim 1.

35. (Withdrawn) A method of local anesthesia comprising administering to a patient in need thereof of an effective amount of a pharmaceutical preparation comprising at least one substituted 1-phenethylpiperidine compound according to claim 1.

36. (New) Substituted 1-phenethylpiperidine compounds according to claim 4, characterised in that  $R^2$  denotes H or COR<sup>5</sup>.